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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,671	11/20/2001	Max Amon	017750-582	9038

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BURNS DOANE SWECKER & MATHIS L L P
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

GABOR, OTILIA

ART UNIT PAPER NUMBER

2878

DATE MAILED: 12/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,671

Applicant(s)

AMON ET AL.

Examiner

Otilia Gabor

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 is/are allowed.
- 6) ☒ Claim(s) 19-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2/02,1/03
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
3. Claims 19-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Housand et al. (U. S. Patent 6,359,681).

Housand et al. discloses an imaging optical apparatus whereby a WFOV (wide field of view) and an NFOV (narrow field of view) as well as a reflected laser image of a target is captured on a detector array 480, the device comprising:

- an optical system 407 including:

- a first optical operating mode, including lenses D1, 501, 502, D2, for projecting the infrared radiation emitted from the target onto the focal plane array of the detector 408 to obtain an NFOV image
 - a second optical operating mode, including lenses D1, 501, 502, 412a, 504, D2, for projecting the infrared radiation emitted from the target onto the focal plane array of the detector 408 to obtain a WFOV image.
- Since both the WFOV and NFOV are used with infrared radiation, the two radiation wavelengths are the same, and thus the second optical system projects at least a portion of the incident radiation projected by the first optical system.
- a third optical system 458 configured to receive radiation having a second wavelength (laser light) reflected from the target, the laser light being emitted from a designator laser 450 toward the target and being reflected by the target, the third optical system 458 being able to project the laser designator image onto the detector array 480 and wherein
 - the optical system 407 and the third optical system 458 share an entrance aperture 401.

In the system of Housand et al. the entrance aperture 401 is shared between the infrared radiation (first wavelength) and the laser light (second wavelength) and thus it is capable of generating the infrared and laser designator images on the same detector array 480 simultaneously. To generate the different mode infrared image, the system of Housand et al. is capable of switching between the WFOV and NFOV image mode, by

rotating the two mobile lenses 412a and 504. See Figs. 4, 5a, 5b and Col. 7, lines 30-67, Col. 8, lines 1-37, and the abstract.

Regarding claim 19 Housand et al. fails to disclose two distinctly separate first and second optical systems, one for the WFOV and one for the NFOV incident radiation, and he fails to disclose two distinctly separate first focal plane and second focal plane where the WFOV and NFOV images are projected. However, since the goal of the optical device of Housand et al. and the goal of the present invention is the same, namely, to obtain WFOV and NFOV as well as laser images of a target using one imaging apparatus and since the only difference between the two inventions is that one (Housand) uses one optical path where first WFOV and then NFOV images are taken by switching between the two modes of operation, and the other (present invention) uses two separate optical paths, one for WFOV and another for NFOV images, one of ordinary skill in the art at the time the invention was made would have been motivated to separate the two optical paths into a first optical system projecting WFOV image and a second optical system projecting NFOV image because that would eliminate the moving optical elements 412a and 504 (required for the mode switch between WFOV and NFOV) which in turn eliminates alignment errors between the optical elements which errors greatly contribute to the errors in the final image of the target. Also this substitution would have been obvious to one of ordinary skill in the art at the time the invention was made since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art (*Nerwin v. Erlichman*, 168 USPQ 177, 179 (CCPA)), and since it has been held that rearranging parts of an invention

where the remaining elements perform the same function as before involves only routine skill in the art (*In re Karlson*, 136 USPQ 184). Also, since the two focal planes of the present invention coincide, having only one focal plane array satisfies the claim limitation.

Regarding claims 20, 25 and 27 Housand et al. fails to disclose a fourth optical system for emitting a second laser light from a second designator laser toward the target and projecting the reflected second laser light onto a second detector, however it would have been obvious to one of ordinary skill in the art at the time the invention was made to include another laser light and thus another optical system and detector into the imaging device of Housand et al., in order to accurately image, recognize, detect, locate and or track the target, for it is well known in the art that combining the images of the target obtained using infrared light with images obtained using different laser lights will achieve this desired effect, and also since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art (*St. Regis Paper Co. v. Bemis Co.*, 549 F.2d 833, 193 USPQ 8 (7th Cir. 1979)).

Allowable Subject Matter

4. Claims 1-18 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter: The reference cited fails to disclose two entrance apertures, one for the first field of view and a second for the second narrower field of view whereby the second aperture is shared between the second optical system and the third optical system.

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Since the main goal of the invention disclosed in the reference Housand is to have one entrance aperture 401 for all the infrared as well as the laser incident radiation, one of ordinary skill in the art would have not been motivated to change that to two separate entrance apertures.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Otilia Gabor whose telephone number is 703-305-0384. The examiner can normally be reached on Monday-Friday between 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 703-308-4852. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

og
Otilia Gabor
AU 2878

